

Traffic Data QA/QC and Flow Data Tool

Brad Gudzin



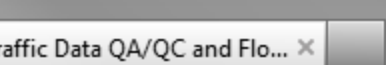

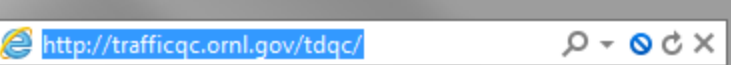



FHWA Office of Highway Policy Information


Highway Information Seminar

October 23, 2012

What is it?

- A web-based tool to help states check the traffic data submitted to FHWA
- Check traffic data quality
- Generate smoothed traffic flows
- User-friendly
- Designed to integrate with existing submittal process through HPMS





Traffic Data QA/QC and Flow Data Development

Login

Traffic Data QA/QC and Flow Data Development

This is a traffic data QA/QC tool to review traffic data and generate smoothed flow values. The tool makes it easier to identify missing or anomalous link traffic data values and provide estimated values for problem values. Users have the ability to review traffic data at a glance and modify flagged values by manually entering a new value or accepting the suggested value. The tool provides an export function where final data can be exported in the exact format as "input" data. For example, if the uploaded data are HPMS compatible, the output data with new AADT values are also HPMS compatible.

How it works:

- (1) Click Login and use state abbreviation for access (e.g. TN, OR, TX)
- (2) Upload Data Files – data files need to be in the format specified in the HPMS Field Manual (for detail see http://www.fhwa.dot.gov/policyinformation/hpms/fieldmanual/chapter4.cfm#a4_2)
- (3) Click Summary and Details QA/QC to run the program
- (4) Accept suggested values or enter values manually
- (5) Export data

Contact

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Data requirements

- HPMS format specification
- Inventory Route Number (Route_ID)
- Beginning Mile post of section (Begin_Point)
- End Mile Post of section (End_Point)
- Average Annual Daily Traffic (AADT)
- Functional System (F_SYSTEM)
- Number of Through Lanes (Through_Lanes)
- Urban Area Code (Urban_Code)

File	Edit	Format	View	Help						
Year_Record	State_Code	Route_ID	Begin_Point	End_Point	Data_Item	Section_Length	Value_Numeric	Value_Text	Value_Date	C
2011	99	001	11200	0.000000	0.330000	AADT	0.330000	4700.000		
2011	99	001	11200	0.000000	0.330000	AADT_COMBINATION	0.330000	50.000		
2011	99	001	11200	0.000000	0.330000	AADT_SINGLE_UNIT	0.330000	110.000		
2011	99	001	11200	0.000000	0.330000	ACCESS_CONTROL	0.330000	3.000		
2011	99	001	11200	0.000000	0.330000	ALTERNATIVE_ROUTE_NAME	0.330000	112TH		
2011	99	001	11200	0.000000	0.330000	COUNTY_CODE	0.330000	1.000		
2011	99	001	11200	0.000000	0.330000	F_SYSTEM	0.330000	4.000		
2011	99	001	11200	0.000000	0.330000	FACILITY_TYPE	0.330000	2.000		
2011	99	001	11200	0.000000	0.330000	OWNERSHIP	0.330000	2.000		
2011	99	001	11200	0.000000	0.330000	ROUTE_QUALIFIER	0.330000	10.000		
2011	99	001	11200	0.000000	0.330000	ROUTE_SIGNING	0.330000	10.000		
2011	99	001	11200	0.000000	0.330000	THROUGH_LANES	0.330000	2.000		
2011	99	001	11200	0.000000	0.330000	URBAN_CODE	0.330000	23527.000		
2011	99	001	11200	1.330000	2.430000	AADT	1.100000	190.000		
2011	99	001	11200	1.330000	2.430000	AADT_SINGLE_UNIT	1.100000	10.000		
2011	99	001	11200	1.330000	2.430000	ACCESS_CONTROL	1.100000	3.000		
2011	99	001	11200	1.330000	2.430000	ALTERNATIVE_ROUTE_NAME	1.100000	112TH AV		
2011	99	001	11200	1.330000	2.430000	COUNTER_PEAK_LANES	1.100000	1.000		
2011	99	001	11200	1.330000	2.430000	COUNTY_CODE	1.100000	1.000		
2011	99	001	11200	1.330000	2.430000	DIR_FACTOR	1.100000	63.000		
2011	99	001	11200	1.330000	2.430000	F_SYSTEM	1.100000	5.000		
2011	99	001	11200	1.330000	2.430000	FACILITY_TYPE	1.100000	2.000		
2011	99	001	11200	1.330000	2.430000	FUTURE_AADT	1.100000	644.000	01/01/2030 12:00:00 AM	
2011	99	001	11200	1.330000	2.430000	K_FACTOR	1.100000	10.000		
2011	99	001	11200	1.330000	2.430000	LANE_WIDTH	1.100000	9.000		
2011	99	001	11200	1.330000	2.430000	MEDIAN_TYPE	1.100000	1.000		
2011	99	001	11200	1.330000	2.430000	OWNERSHIP	1.100000	2.000		
2011	99	001	11200	1.330000	2.430000	PCT_PEAK_COMBINATION	1.100000	0.500		
2011	99	001	11200	1.330000	2.430000	PCT_PEAK_SINGLE	1.100000	9.000		
2011	99	001	11200	1.330000	2.430000	PEAK_LANES	1.100000	1.000		
2011	99	001	11200	1.330000	2.430000	PEAK_PARKING	1.100000	3.000		
2011	99	001	11200	1.330000	2.430000	ROUTE_QUALIFIER	1.100000	10.000		
2011	99	001	11200	1.330000	2.430000	ROUTE_SIGNING	1.100000	10.000		
2011	99	001	11200	1.330000	2.430000	SHOULDER_TYPE	1.100000	1.000		
2011	99	001	11200	1.330000	2.430000	SIGNAL_TYPE	1.100000	5.000		
2011	99	001	11200	1.330000	2.430000	SPEED_LIMIT	1.100000	40.000		
2011	99	001	11200	1.330000	2.430000	STOP_SIGNS	1.100000	1.000		
2011	99	001	11200	1.330000	2.430000	SURFACE_TYPE	1.100000	1.000		
2011	99	001	11200	1.330000	2.430000	THROUGH_LANES	1.100000	2.000		
2011	99	001	11200	1.330000	2.430000	TURN_LANES_L	1.100000	5.000		
2011	99	001	11200	1.330000	2.430000	TURN_LANES_R	1.100000	5.000		
2011	99	001	11200	1.330000	2.430000	URBAN_CODE	1.100000	23527.000		
2011	99	001	11200	1.330000	2.430000	WIDENING_OBSACLE	1.100000	X		
2011	99	001	11200	1.330000	2.430000	WIDENING_POTENTIAL	1.100000	3.000		
2011	99	001	11200	1.330000	2.430000	YEAR_LAST_CONSTRUCTION	1.100000	01/01/1998 12:00:00 AM		
2011	99	001	11200	3.430000	3.930000	AADT	0.500000	190.000		
2011	99	001	11200	3.430000	3.930000	AADT_SINGLE_UNIT	0.500000	10.000		
2011	99	001	11200	3.430000	3.930000	ACCESS_CONTROL	0.500000	3.000		

Better traffic data in 3 easy steps



Traffic Data QA/QC and Flow Data Development

This is a traffic data QA/QC tool to review traffic data and generate smoothed flow values. The tool makes it easier to identify missing or anomalous link traffic data values and provide estimated values for problem values. Users have the ability to review traffic data at a glance and modify flagged values by manually entering a new value or accepting the suggested values. The output data can be exported in the exact format as "input" data. New AADT values are also HP

How it works:

- (1) Click Login and use state
- (2) Upload Data Files – data from <http://www.fhwa.dot.gov/po/>
- (3) Click Summary and Details
- (4) Accept suggested values
- (5) Export data

Contact

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Traffic Data File Upload

Selected Files:

Review_Sections_View_2011_99.csv	10.69 MB	X
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Total **0%** **10.69 MB**

Cancel

Upload

Close



Traffic Data QA/QC and Flow Data Development

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Colorado

☐ Show All Routes for Review

Traffic Data QA/QC Summary

	Year Record	State Name	Route ID	Review Count	Number of Sections	
>	2010	Colorado	070A	39	105	Interstate
	2010	Colorado	025A	34	117	Interstate
	2010	Colorado	076A	11	40	Interstate






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Traffic Data QA/QC Details

Accept All Suggested

Save Changes

Cancel Changes

	Route ID	Begin Point	End Point	Functional System	Through Lanes	Urban Area	Original AADT Value	Suggested AADT Value	Accept Suggested AADT	Suggested Value / Manu Edited AADT
	025A	0.00	11.01	Interstate	4	Rural	8900	9664	<input type="checkbox"/>	
	025A	11.01	11.17	Interstate	4	Rural	14000			
	025A	11.17	12.95	Interstate	4	Small Urban	14000			
	025A	12.95	13.28	Interstate	4	Small Urban	15000	13470	<input type="checkbox"/>	14
	025A	13.28	13.98	Interstate	4	Small Urban	12000		<input type="checkbox"/>	
>	025A	13.98	14.84	Interstate	4	Small Urban	14000	9983	<input checked="" type="checkbox"/>	9
	025A	14.84	17.54	Interstate	4	Small Urban	9500			



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Colorado

☐ Show All Routes for Review

AADT Edited

All AADT

All Records

Traffic Data QA/QC Summary

	Year Record	State Name	Route ID	Review Count	Number of Sections	F
>	2010	Colorado	070A	39	105	Interstate
	2010	Colorado	025A	34	117	Interstate
	2010	Colorado	076A	11	40	Interstate






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Traffic Data QA/QC Details

Accept All Suggested

Save Changes

Cancel Changes

	Route ID	Begin Point	End Point	Functional System	Through Lanes	Urban Area	Original AADT Value	Suggested AADT Value	Accept Suggested AADT	Suggested Value / Edited AADT
	070A	0.00	11.12	Interstate	4	Rural	6200			
	070A	11.12	15.07	Interstate	4	Rural	6300	6774	<input checked="" type="checkbox"/>	
	070A	15.07	18.09	Interstate	4	Rural	8200			
	070A	18.09	19.55	Interstate	4	Small Urban	8200	12818	<input checked="" type="checkbox"/>	
	070A	19.55	20.08	Interstate	4	Small Urban	16000			
	070A	20.08	24.56	Interstate	4	Rural	16000			
	070A	24.56	27.65	Interstate	4	Grand Junction, CO	16000			
>	070A	27.65	31.45	Interstate	4	Grand Junction, CO	18000	19170	<input checked="" type="checkbox"/>	

Live Demonstration

FHWA Traffic Data QA/QC Tool
<http://trafficqc.ornl.gov/tdqc>

Questions?

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